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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,974	03/13/2001	Wide Roeland Hogenhout	1263.1591	8959

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EXAMINER

HAN, QI

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/803,974	HOGENHOUT ET AL.	
	Examiner	Art Unit	
	Qi Han	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 April 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/13/2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Response to Amendment***

2. This communication is responsive to the applicant's amendment dated 04/27/2005. Applicant amended claims 1-28 and added claim 30 (see pages 2-16).

#### ***Response to Arguments***

Applicant's arguments regarding claim rejection under 35 USC 103(a) filed on 04/27/2005 (pages 18-22) with respect to claims 1-29, have been fully considered but they are not persuasive. It is also noted that applicant's arguments with respect to claims 14 and 28-19 are moot in view of the new ground(s) of rejection, because the amended claims change the scope and/or dependency of the claims.

3. In response to applicant's arguments with respect to independent claim 1 (also related to claims 14-15, 28-29) that "neither of these document (reference prior art) teaches or suggests generating means responsive to an obtaining current state of a machine to generation to inform a user of a natural language instruction which can be input to the machine to achieve the current state of the machine" (amendment: page 18, paragraph 4 to page 21, paragraph 2), the examiner

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respectfully disagrees with the applicant and has a different view of the prior art teachings and the claim interpretation.

It is noted that the applicant's arguments against the references individually, but one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

It is also noted that, as stated in the claim rejection, JUNQUA in view of HOFFBERG discloses that 'natural language parser 24 supplies a semantic relation of the user's input to the command module 30 (herein combined blocks 24 and 30 corresponds to the generating means)', 'this module, in turn, commands (corresponding to a natural language instruction) the tuner 32 (machine) in making channel selections (corresponding to different machine states including a current state)'; and 'the command module 30 sends (input) a command to tuner 32 to access an electronic program guide (wherein reflecting one of machine state, which can also be interpreted as current state) (JUNQUA: column 3, lines 35-65 and Fig. 1); and that 'if the program guide includes a program that meets the user's request (a natural language instruction input to the machine) the command module will notify (inform) the user by synthesized voiced response (interpreted as generating information to the user) and/or display by display of suitable text prompt (generating information to the user) on the television screen 36' (JUNQUA: column 3, line 65 to column 4, line 3); 'programmable apparatus that includes a control means monitoring a status (current state) of the apparatus (machine) to determining the occurrence of various events (HOFFBERG: column 72, lines 11-21), and 'the intelligent device may be used for analyzing data patterns indicative particular states and the system may set/control/monitor the status of any

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home-based device (HOFFBERG: column 148, lines 32-49). Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to modify JUNQUA by specifically providing a status means for monitoring states of a device, as taught by HOFFBERG, for the purpose of detecting abnormal patterns or changes in condition (HOFFBERG: column 148, line 49). Thus, the combined system with teachings of JUNQUA and HOFFBERG comprises all the limitations or equivalent functionalities as claimed and argued.

Regarding the related dependent claims, the response is based on the same reason described above, since the applicant does not present a separate or additional issue for the dependent claims.

For the above reason, the examiner believes the rejection based on the combined references is proper and the rejection is sustained.

### *Drawings*

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims.

Regarding Fig. 1 and claim 1, claim 1 recites “a user interface apparatus...comprising: status means...generating means and output means...” and the specification (page 5, line 10-12) recites “the machine incorporating the user interface” (page 5, lines 10-12), “the language interface” and “a speech interface” (page 6, lines 7-11). However, the machine diagram (Fig. 1) lacks to show each of the corresponding critical elements, particularly the claimed elements:

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status means and generating means. Therefore, the “status means and generating means” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Regarding Fig. 1 and claim 14, claim 14 recited that “said machine including: instruction input means ...and the user interface apparatus according claim 1”. However, in the machine diagram (Fig. 1), there is no clear functional block to show the two claimed elements. Therefore, the lacked or unclear structured elements “instruction input means” and “user interface apparatus” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Claim Objections*

5. Claim 14 is objected to because the following reason:

Regarding claim 14, it recites “said machine including: instruction input means ...and the user interface apparatus according claim 1”. However, it is unclear what the “instruction input means” is referred to, in the specification, and how the two claimed elements are incorporated. According to the argument (see amendment filed on 04/27/2005, pages 16-17), applicant argues “the machine user interface 1 shown in Fig 1. is ...**the part of the user interface apparatus...**” Therefore, the claimed limitation “instruction input means”, which is clearly indicated to be outside (not the part of) “the user interface apparatus”, lacks specific description and reference in the specification.

*Claim Rejections - 35 USC § 112*

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 3, the limitation “means for receiving from a user who has input a natural language instruction to **arrive at the** current state of said machine **a request** for an appropriate natural language instruction to **reach the** current state, wherein said generating means is adapted to be responsive to **a received request** to generate said information as the requested appropriate natural language instruction” is unclear and/or not descriptive, since the

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limitation lacks clear relationship between the claimed structural elements (means), and between the above bold terms, which lead the claimed limitation to be indefinite.

Regarding claim 14, the amended claim recites “[a] machine... including: ...**the** user interface apparatus **according to claim 1**”. It is unclear what the scope relationship is between this claim and the referenced (or parent) claim 1, which lead the claim to be indefinite. As best understood, this claim will be treated as an independent claim hereinafter.

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 28-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 28, it recites “program code for programming a processor ...”, which lacks enablement because the specification does not describe or provide any program code for programming at all. Therefore the claimed subject matter does not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention, without undue experimentation.

Regarding claim 29, it recites “a carrier medium carrying the program code”. The rejection is based on the same or similar reason as claim 28 (see above).



***Claim Rejections - 35 USC § 103***

8. Claims 1-8, 10-22 and 24-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over JUNQUA et al. (US 6,415,257 B1) hereinafter referenced as JUNQUA, in view of HOFFBERG et al. (US 6,400,996 B1) hereinafter referenced as HOFFBERG.

As per **claim 1**, JUNQUA discloses system for identifying and adapting a TV-user profile by means of speech technology (title), comprising:

“generating means [responsive to the obtained current state of said machine] to generate information to inform a user of a natural language instruction which can be input to said machine to achieve the current state of said machine” (column 3, lines 35-65 and Fig. 1, ‘natural language parser 24 supplies a semantic relation of the user’s input to the command module 30 (herein combined blocks 24 and 30 corresponds to the generating means)’, ‘This module, in turn, commands (corresponding to a natural language instruction) the tuner 32 (machine) in making channel selections (corresponding to different machine states including a current state)’, ‘the command module 30 sends (input) a command to tuner 32 to access an electronic program guide (wherein reflecting one of machine state, which is interpreted as current state); column 3, line 65 to column 4, ‘the command module will notify (inform) the user by synthesized voiced response (generating information to the user) and /or display by display of suitable text prompt (generating information to the user) on the television screen 36’); and

“outputmeans for outputting the generated information to the user”, (Fig. column 3, line 65 to column 4, line3, ‘the command module will notify (inform) the user by synthesized voiced response (outputting the generated information to the user) and /or by display of suitable text

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prompt (outputting the generated information to the user) on the television screen 36 (output means)').

But, JUNQUA does not expressly disclose "status means for obtaining a current state of said machine". However, this feature is well known in the art as evidenced by HOFFBERG who discloses adaptive pattern recognition based control system and method (title), comprising a programmable apparatus that includes a control means monitoring a status of the apparatus to determining the occurrence of various events (column 72, lines 11-21), and the intelligent device may be used for analyzing data patterns indicative particular states and the system may set/control/monitor the status of any home-based device (column 148, lines 32-49). Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to modify JUNQUA by specifically providing a status means for monitoring states of a device, as taught by HOFFBERG, for the purpose of detecting abnormal patterns or changes in condition (HOFFBERG: column 148, line 49).

As per **claim 2** (depending on claim 1), JUNQUA further discloses "means for receiving a request from a user of said machine for said information, wherein said generating means is adapted to be responsive to a received request to generate said information", (Fig. 1, block 10, 'speech input (for receiving request from user', and blocks 12, 24 and 30, 'speech recognizer', natural language parser' and 'command module' that respond to the request and generate the information).

As per **claim 3** (depending on claim 1), as best understood in view of the rejection under 35 USC 112 2<sup>nd</sup> (see above), JUNQUA further discloses "means for receiving from a user who has input a natural language instruction to arrive at the current state of said machine a request for

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an appropriate natural language instruction to reach the current state, wherein said generating means is adapted to be responsive to a received request to generate said information as the requested appropriate natural language instruction”, (Fig. 1, block 10, ‘speech input (for receiving request from user’, and blocks 12, 24 and 30, ‘speech recognizer’, natural language parser’ and ‘command module’ that respond to the request and generate the information as command (requested instruction) to input to device 32; column 2, lines 29-30, ‘the user interacts with the system by speaking, using natural language’).

As per **claim 4** (depending on claim 1), JUNQUA in view of HOFFBERG further discloses that “said status means is adapted to maintain a data structure containing attributes defining the current state of the machine, each attribute having a number of possible values”, (JUNQUA: column 4, lines 40-57, ‘frame data structure’, ‘one frame may have slots directed to attributes (inherently including multiple values) of a movies director, and type of movies’, ‘another frame may have slots directed to attributes associated with the time, the channel (including different values), and so forth’; column 3, lines 53-55, ‘the command module 30 sends a command to tuner 32 to access an electronic program guide (inherent includes data structure with attributes)’), so that the combined system is capable of implementing the claimed functionality).

As per **claim 5** (depending on claim 4), JUNQUA in view of HOFFBERG further discloses that “each attribute has at least one natural language fragment associated therewith, and said generating means is adapted to generate said information by building up a natural language instruction from said natural language fragments for said attributes for the current state of said machine”, (JUNQUA: column 2, lines 29-30, ‘the user interacts with the system by speaking,

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using natural language'; column 4, lines 40-51, 'a frame data structure (whose domain is tuner commands) include an empty slot (reflecting an attribute) for specifying the viewer-requested channel (corresponding to one natural language fragment) for a time period', which means that the slots of a frame data structure can be filled by appropriate attribute data and the form a natural language command (instruction) as claimed).

As per **claim 6** (depending on claim 5), JUNQUA in view of HOFFBERG further discloses that the generating means is adapted to build said natural language instruction in accordance with natural language rules, (JUNQUA: column 3 lines 6-7, 'the system include a natural language parser 24 that uses a set of pre-defined grammars (rules)').

As per **claim 7** (depending on claim 5), JUNQUA in view of HOFFBERG further discloses said the generating means is adapted to order said natural language fragments in accordance with order rules, (JUNQUA: column 4 lines 6-7, 'the frame data structure contains empty slots that are filled when the semantic interpretation of global parser matches the frame', which means that the order rules of the language fragments is inherently included in the frame).

As per **claim 8** (depending on claim 5), JUNQUA in view of HOFFBERG further discloses that the generating means is adapted to replace elements in the natural language instruction with other elements in dependence upon at least one of previous user interactions, preferred synonyms, user preferences, and natural language input recognition problems, (JUNQUA: column 4 lines 63-65, 'use dialog history data (previous user interaction) file 176 to assist in filling in empty slot'; column 5, lines 45-55, 'generates several alternative parse-tree, each parse-tree representing a possibly different interpretation of a particular topic' and 'the (N)

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best candidates are selected', which are broadly interpreted as synonyms or recognition problems (referred in the specification, page 8, line 17 to page 9, line 3)).

As per **claim 10** (depending on claim 1), JUNQUA further discloses that the generating means is adapted to generate said information as text, (column 5 lines 6-7, 'natural language text may have been generated as the output of an automatic speech recognition system', 'the natural language module translates the natural language text input to a new representation (of text) by generating well-structured tags').

As per **claim 11** (depending on claim 10), as stated above, JUNQUA discloses that the output means is adapted to display said text, (column 4, line 3, 'by display of suitable text prompt on the television screen 36 (output means)').

As per **claim 12** (depending on claim 10), as stated above, JUNQUA discloses that the output means includes speech synthesis means for synthesizing speech from said text and audio output means for audibly outputting said speech, (column 3, line 65 to column 4, line 1, 'the command module will notify (output) the user by synthesized voiced response (speech); Fig. 1, block 44, 'speech synthesizer').

As per **claim 13** (depending on claim 1), as stated above, JUNQUA discloses that the generating means is adapted to generate said information as speech data, (column 3, line 65 to column 4, line 1, 'the command module will notify (output) the user by synthesized voiced response (speech data); Fig. 1, block 44, 'speech synthesizer').

As per **claim 14** (depending on claim 1), as best understood in view of the claim objection, and rejection under 35 USC 112, 2<sup>nd</sup> (see above), JUNQUA in view of HOFFBERG all the limitations of the user interface apparatus, as described for claim 1 (see above). JUNQUA

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further “instructions input means to input said user instructions to said machine using at least natural language as a mode of input” (Fig. 1, blocks 10, 24, 30, 32; column 3, lines 35-55, ‘speech input’, ‘speech recognizer’, ‘the natural language parser 24 supplies a semantic relation of the user’s input to the command module 30’, which provides using at least natural language as a mode of input).

As per **claims 15-22 and 24-27**, they recite a method. The rejection is based on the same reason as described for claims 1-8 and 10-13 respectively, because the claims recite same or similar limitation(s) as claims 1-8 and 10-13 respectively.

As per **claim 28**, as best understood in view of the claim rejection under 35 USC 112, 1<sup>st</sup> (see above), the rejection is based on the same reason described for claim 1, because the claim recites the same or similar limitations as claim 1.

As per **claim 29**, as best understood in view of the claim rejection under 35 USC 112, 1<sup>st</sup> (see above), the rejection is based on the same reason described for claim 28, because the claim recites the same or similar limitations as claim 28.

As per **claim 30**, the rejection is based on the same reason described for claim 1, because the claim recites the same or similar limitations as claim 1.

9. Claims 9 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over JUNQUA and HOFFBERG as applied to claims 5 and 19 above, and further in view of well known prior art (MPEP 2144.03).

As per **claim 9** (depending on claim 5), JUNQUA in view of HOFFBERG does not expressly disclose to add natural language elements to said natural language instruction as at

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least one of a surrounding phrase and a politeness term. However, an official notice is taken that the feature of adding surrounding phrases to a natural language instruction is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to modify JUNQUA in view of HOFFBERG by specifically adding surrounding phrases to a natural language instruction, for the purpose of clearly expressing a user request or intention.

As per **claim 23** (depending on claim 19), the rejection is based on the same reason as described for claim 9, because the claim recites same or similar limitation(s) as claim 9.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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11. Any response to this action should be mailed to:  
Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450  
**or faxed to:**  
(703) 872-9306, (for formal communications intended for entry)  
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qi Han whose telephone numbers is (703) 305-5631. The examiner can normally be reached on Monday through Thursday from 9:00 a.m. to 7:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil, can be reached on (703) 305-6954.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Inquiries regarding the status of submissions relating to an application or questions on the Private PAIR system should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028 between the hours of 6 a.m. and midnight Monday through Friday EST, or by e-mail at: [ebc@uspto.gov](mailto:ebc@uspto.gov). For general information about the PAIR system, see <http://pair-direct.uspto.gov>.

QH/qh  
August 18, 2005

  
DAVID D. KNEPPER  
PRIMARY EXAMINER